MIAMI-DADE COUNTY
DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY AFFAIRS (PERA)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/pera

NOTICE OF ACCEPTANCE (NOA)

WinDoor, Inc.
7500 Amsterdam Drive
Orlando, FL 32832

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "4000" Aluminum Single Hung Window – S.M.I.

APPROVAL DOCUMENT: Drawing No. **FEI0002**, titled "Series 4000 Single Hung Impact (SMI) Window", sheets 1 through 7 of 7, dated 07/11/11, with revision A dated 02/14/12, prepared by PTC, Product Design Group, LLC, signed and sealed by Robert James Amoruso, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises NOA # 11-0815.12** and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P.E.**

MIAMI-DADE COUNTY APPROVED

5/23/12

NOA No. 12-0320.16
Expiration Date: November 18, 2014
Approval Date: May 31, 2012

WinDoor, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No **FEI0002**, Sheets 1 through 7 of 7, titled "Series 4000 Single Hung Impact (SMI) Window", dated 07/11/11, with revision A dated 02/14/12, prepared by PTC Product Design Group, LLC, signed and sealed by Robert James Amoruso, P.E.

B. TESTS

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
   2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
   3) Water Resistance Test, per FBC, TAS 202-94
   4) Large Missile Impact Test per FBC, TAS 201-94
   5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
   6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

   along with marked-up drawings and installation diagram of aluminum single hung window, specimens #SH-1 through #SH-6, prepared by National Certified Testing Laboratories, Test Report No. **NCTL-210-3567-2**, dated 10/24/08, signed and sealed by Gerard J. Ferrara, P.E.
   (Submitted under previous NOA #09-0723.07)
2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
   2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
   3) Water Resistance Test, per FBC, TAS 202-94
   4) Large Missile Impact Test per FBC, TAS 201-94
   5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
   6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

   along with marked-up drawings and installation diagram of aluminum single hung window, specimens #SH-9, #SH-10 and #SH-11prepared by National Certified Testing Laboratories, Test Report No. **NCTL-210-3568-2**, dated 10/24/08, signed and sealed by Gerard J. Ferrara, P.E.
   (Submitted under previous NOA #09-0723.07)

C. CALCULATIONS:

1. Anchor verification calculations and structural analysis, complying with FBC-2007, prepared by PTC, LLC, dated 5/19/09, signed and sealed by Robert James Amoruso, P.E.
   (Submitted under previous NOA #11-0815.12)
2. Glazing complies with ASTM E1300-04

Manuel Perez, P.E.
Product Control Examiner
NOA No. 12-0320.16
Expiration Date: November 18, 2014
Approval Date: May 31, 2012

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

D. QUALITY ASSURANCE

1. Miami-Dade Department of Permitting, Environment, and Regulatory Affairs (PERA)

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **11–0624.02** issued to **E.I. DuPont DeNemours & Co.**, Inc. for their "**DuPont SentryGlas® Interlayer**" dated 08/25/11, expiring on 01/14/17.

F. STATEMENTS

1. Statement letter of conformance, complying with FBC-2007 and FBC-2010, and no financial interest, dated March 13, 2012, signed and sealed by Robert James Amoruso, P.E.
2. Laboratory compliance letters for Test Reports No. **NCTL-210-3567-2** and **NCTL-210-3568-2,** issued by National Certified Testing Laboratories, dated January 7, 2009, signed and sealed by Gerard J. Ferrara, P.E.
   (Submitted under previous NOA #09-0723.07)

G. OTHERS

1. Notice of Acceptance No. **11-0815.12,** issued to WinDoor, Inc. for their Series "4000" Aluminum Single Hung Window – S.M.I., approved on 09/29/11 and expiring on 11/18/14.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 12-0320.16
Expiration Date: November 18, 2014
Approval Date: May 31, 2012

WINDOOR, Inc.

IMPACT SERIES 4000 SH Window, SMI

INSTALLATION ANCHORAGE DETAILS

GENERAL NOTES:

1. THIS PRODUCT IS DESIGNED TO COMPLY WITH THE HIGH VELOCITY HURRICANE ZONE (HVHZ) OF THE 2007 AND 2010 FLORIDA BUILDING CODE (FBC) AT THE DESIGN PRESSURES STATED HEREIN. THE PRODUCT DETAILS CONTAINED HEREIN ARE BASED UPON SIGNED AND SEALED TEST REPORT # NCTL-210-3744-2A AND NCTL-210-3744-6A DATED 01/07/2009 AND ASSOCIATED LABORATORY STAMPED DRAWINGS AND WERE TESTED IN ACCORDANCE WITH CURRENT DADE COUNTY PROTOCOLS.
2. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE MASONRY AND 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE STRUCTURE IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.
3. WHEN WOOD BUCKS ARE USED, THEY SHALL NOT BE CONSIDERED PART OF THE STRUCTURAL SUBSTRATE REGARDLESS OF THEIR ATTACHMENT TO THE STRUCTURAL SUBSTRATE. WOOD BUCKS SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.
4. WHEN 1X AND 2X WOOD BUCKS ARE USED AND IN CONTACT WITH CONCRETE AND/OR MASONRY, THE WOOD USED SHALL BE EITHER A PRESERVATIVE TREATED SOUTHERN YELLOW PINE OR A DURABLE WOOD SPECIES IN ACCORDANCE WITH 2007 AND 2010 FBC – BUILDING, SECTION 2326.2. THE WOOD USED MUST HAVE A SPECIFIC GRAVITY OF 0.55 MINIMUM.
5. AN IMPACT PROTECTIVE SYSTEM (I.E. SHUTTERS, ETC.) IS NOT REQUIRED WITH THESE WINDOWS.
6. WINDOW FRAME MATERIAL: ALUMINUM 6063-T6 AND 6005-T5.
7. GLASS MEETS THE REQUIREMENTS OF ASTM E1300-04.
8. DESIGNATIONS "X" AND "O" STANDS FOR THE FOLLOWING: X: OPERABLE SASH, O: FIXED LITE.
9. A 1/3 INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THE DESIGN OF THE PRODUCTS SHOWN HEREIN. WIND LOAD DURATION FACTOR (Cd = 1.6) HAS NOT BEEN USED FOR WOOD ANCHOR DESIGN.

Table 1 - ANCHOR SCHEDULE

Substrate	Minimum Concrete Strength (psi)	Anchor Type	Size	Manufacturer	Minimum Embedment (in)	Minimum Edge Distance (in)
CMU	ASTM C90	Carbon Steel Concrete Screw	1/4"	ITW Buildex Tapcon	1 1/4	2 1/2
				ITW Buildex Tapcon with Advanced Threadform Technology	1	2
				Elco Ultracon	1 1/4	1 1/2
Filled (Grouted) CMU	2000	Carbon Steel Concrete Screw	1/4"	ITW Buildex Tapcon with Advanced Threadform Technology	1 3/4	1 1/2
	2000	Carbon Steel Concrete Screw		Elco Ultracon	1 3/4	2 1/2
Concrete	2000	Carbon Steel Concrete Screw	1/4"	ITW Buildex Tapcon with Advanced Threadform Technology	1 3/4	1 1/2
	2700	Carbon Steel Concrete Screw		Elco Ultracon	1 3/4	1 1/2
Wood Frame	n/a	Wood or Tapping Screw (Carbon or Stainless Steel)	#14 WS 1/4" TS	ANSI B18.6.1 or ASME B18.6.4, Type AB	1 1/2	1
Mullion (Jamb Only)	n/a	Tapping Screw (Carbon or Stainless Steel)	1/4"	ASME B18.6.4	3 screw threads embedment past inside of mullion's web.	n/a

Table 1 - Notes:

A. Other manufacturer's concrete screws may be acceptable if they meet or exceed the allowable shear value of 303 lbs for concrete or grout-filled CMU or 202 lbs for hollow CMU, are installed at a minimum embedment required for that allowable and the installation meets the edge distance and spacing requirements for that anchor at the prescribed shear capacity.
B. All screws will be "flat" head.
C. Screw lengths will be sufficient to allow the minimum embedment to be made into the receiving substrate.
D. CMU: Concrete Masonry Unit.

INSTALLATION NOTES:

1. ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN ON THE ELEVATIONS.
2. NOT APPLICABLE.
3. ALL INSTALLATION ANCHORS MUST HAVE A CORROSION RESISTANT COATING OR BE MADE OF STAINLESS STEEL.
4. SEAL FRAME CORNERS AT SILL-TO-JAMB AND HEAD-TO-JAMB WITH SMALL JOINT SEAM SEALANT. SEE CORNER DETAIL.
5. SEAL ALL INSTALLATION ANCHOR HEADS WITH SMALL JOINT SEAM SEALANT DURING INSTALLATION. APPLY SEALANT IN COUNTERSINK BEFORE ANCHOR INSTALLATION AND SEAL ANCHOR HEAD AFTER ANCHOR INSTALLATION.
6. THE SPACING OF INSTALLATION ANCHORS DEPICTED IS THE MAXIMUM SPACING TO BE USED FOR PRODUCT INSTALLATION. ANCHORS ARE TO MATCH TYPE, SIZE, EDGE DISTANCE AND EMBEDMENT OF THOSE SHOWN IN TABLE 1 FOR RESPECTIVE SUBSTRATE.
7. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM(S). MAXIMUM ALLOWABLE SHIM THICKNESS IS 1/4 INCH. SHIM WHERE SPACE OF 1/16 INCH OR GREATER OCCURS. SHIM(S) SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER.
8. FOR INSTALLATION INTO WOOD FRAMING, USE WOOD SCREWS OR TAPPING SCREWS OF SUFFICIENT LENGTH TO ACHIEVE THE MINIMUM EMBEDMENT, MINIMUM EDGE DISTANCE AND MINIMUM ANCHOR SEPARATION OF 1 INCH AS SHOWN IN TABLE 1.
9. FOR INSTALLATION THROUGH 1X WOOD BUCK TO CONCRETE / MASONRY, OR DIRECTLY INTO CONCRETE / MASONRY, USE CONCRETE SCREWS OF SUFFICIENT LENGTH TO ACHIEVE MINIMUM EMBEDMENT AND MINIMUM EDGE DISTANCE AS SHOWN IN TABLE 1. TO PREVENT WOOD BUCKING FROM SPLITTING, DRILL 1/4" DIAMETER HOLE TO ACCOMODATE ANCHORS.
10. FOR INSTALLATION INTO MIAMI-DADE APPROVED MULLION, USE TAPPING SCREWS OF SUFFICIENT LENGTH TO ACHIEVE A MINIMUM OF 3 THREADS EMBEDMENT PAST INSIDE OF MULLION'S WEB AS SHOWN ON TABLE 1. APPLICABLE ONLY FOR JAMB TO MULLION CONNECTION, SHIMS CANNOT BE USED.
11. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES (INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER AND SIDING).
12. FOR CONCRETE BLOCK, DO NOT INSTALL INSTALLATION ANCHORS INTO MORTAR JOINTS. EDGE DISTANCE IS MEASURED FROM FREE EDGE OF BLOCK OR EDGE OF MORTAR JOINT INTO FACE SHELL OF BLOCK.
13. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
    A. WOOD - SOUTHERN YELLOW PINE. MINIMUM SPECIFIC GRAVITY OF 0.55.
    B. CONCRETE - MINIMUM COMPRESSIVE STRENGTH SHOWN IN TABLE 1 AND COMPLIES WITH ACI 301.
    C. MASONRY - STRENGTH CONFORMANCE TO ASTM C-90 MEDIUM WEIGHT (DENSITY > 117 PCF). GROUT FILLED PER FLORIDA BUILDING CODE.

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PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 12-0320.16
Expiration Date Nov. 18, 2014
By Miami-Dade Product Control

REVISIONS

SHEET	REV	DESCRIPTION	DATE	BY
.	0	ORIGINAL ISSUE	07/11/11	RJA
.	A	UPDATE TO 2010 FBC	02/14/12	JBH

Robert J. Amoruso, P.E.
FL License No. 49752

ROBERT JAMES AMORUSO LICENSE No 49752 STATE OF FLORIDA PROFESSIONAL ENGINEER 3/17/12

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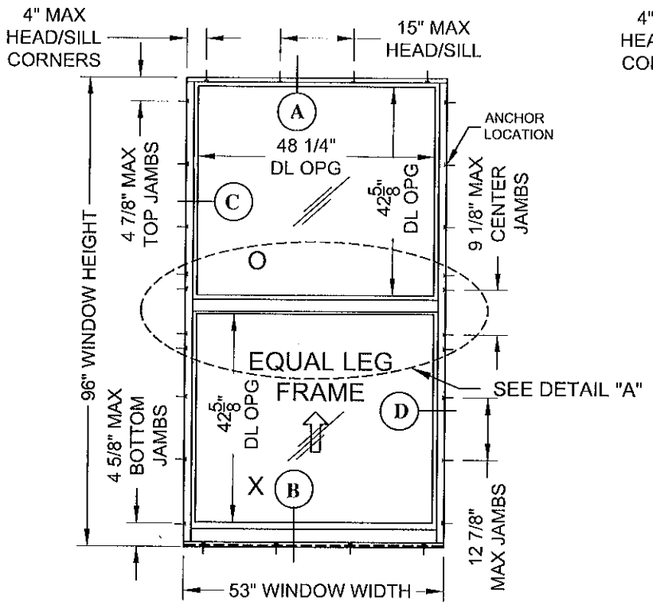
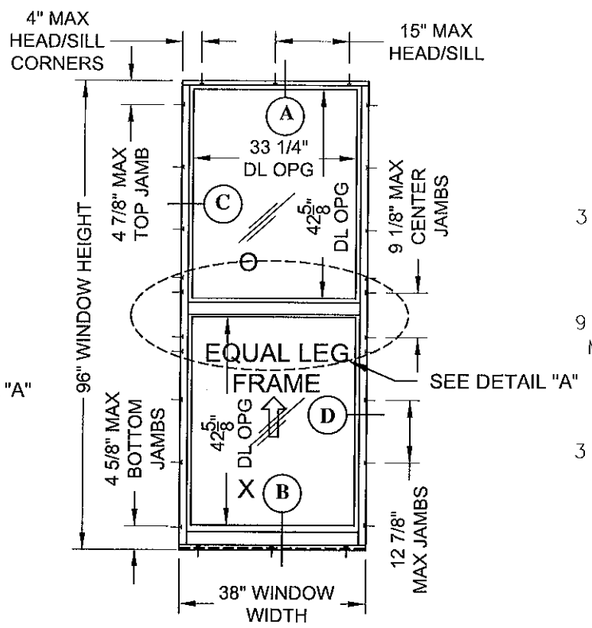
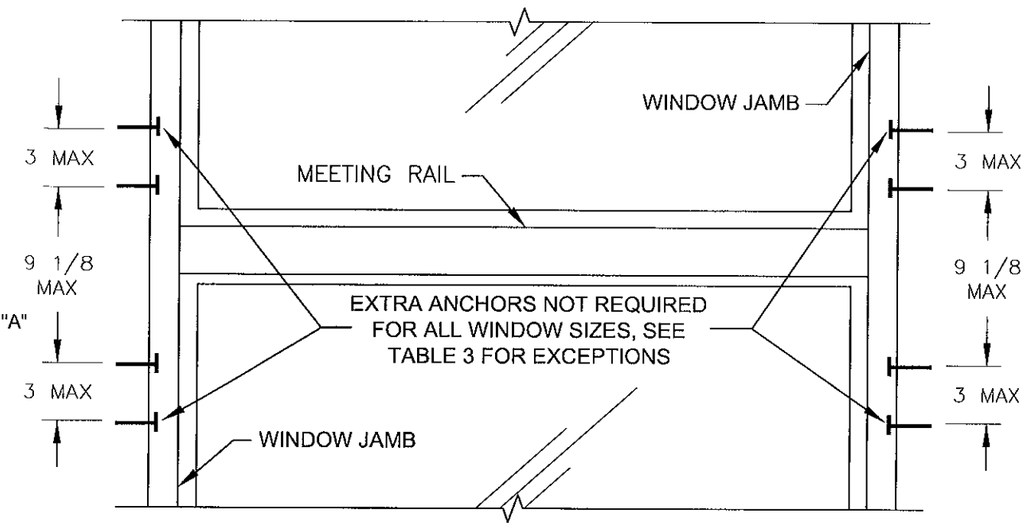
DRAWING TITLE:
SERIES 4000 SINGLE HUNG IMPACT (SMI) WINDOW
GENERAL AND INSTALLATION NOTES

SIZE	DRAWN BY:	DWG NO.	REV
.	JBH	FEI0002	A

SCALE	DATE:	SHEET
NTS	07/11/11	1OF7

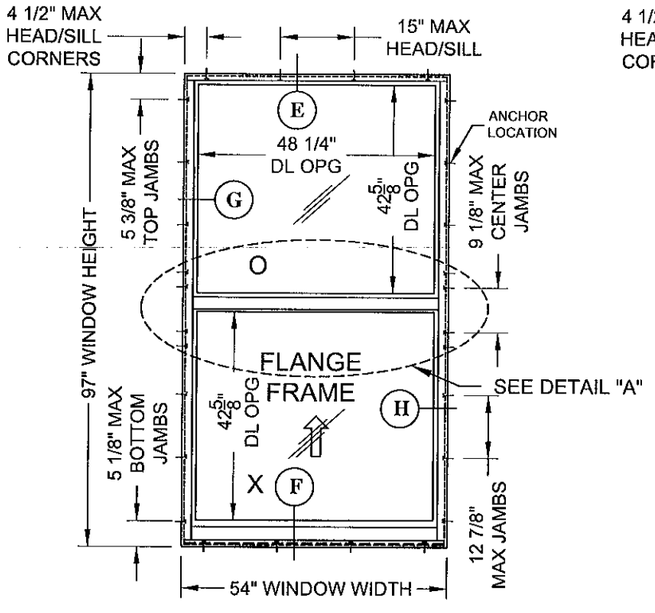




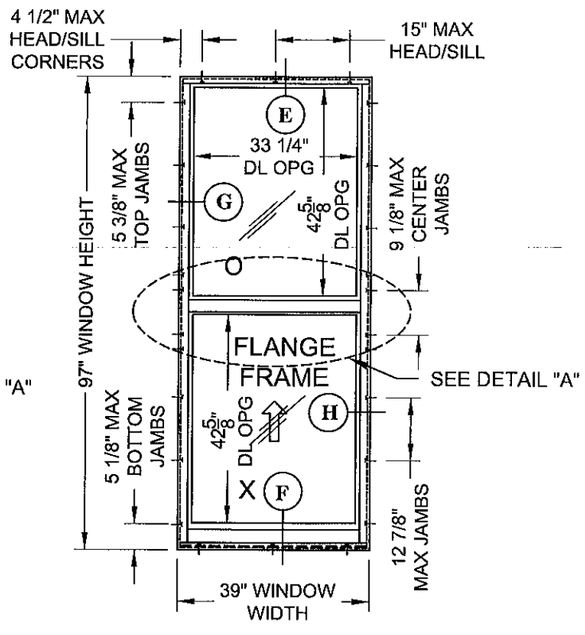


DETAIL "A"

ENHANCED MEETING RAIL ANCHORAGE (NTS) REQUIRED ON ALL SIZES WITH BUCK HEIGHT 30 1/2" AND GREATER.



ELEVATION 1



ELEVATION 2

Table 2 - Design Pressure (psf) for Small Missile Impact					
Elevation	Window Size based on Buck Width and Height (in)		Design Pressure (psf) Concrete/Masonry, Wood and Mullion Substrates (see Table 3 for exceptions)		Impact Rating
	Width	Height	Lami	Lami+IG	
1	> 38" to 53"	up to 96"	110	110	Small Missile Impact
2	up to 38"	up to 96"	110	110	

NOTES:

1- FOR EQUAL LEG WINDOWS, BUCK DIMENSIONS ARE THE SAME AS WINDOW DIMENSIONS.
2- FOR FLANGE WINDOWS, BUCK DIMENSIONS ARE 1" LESS THAN WINDOW DIMENSIONS.
3- ELEVATIONS ARE VIEWED FROM EXTERIOR.
4- SCREENS ARE NOT SHOWN FOR CLARITY.
5- ALL DIMENSIONS ARE IN INCHES.
6- DL OPG: DAY LIGHT OPENING.
7- ANCHOR LOCATION SPACINGS SHOWN FOR THE JAMBS ARE THE SAME FOR A WALL OR A MULLION.

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No 12-0370.16
Expiration Date Nov. 18, 2014
By Miami-Dade Product Control

REVISIONS			
SHEET	REV	DESCRIPTION	DATE	BY
.	0	ORIGINAL ISSUE	07/11/11	RJA
.	A	UPDATE TO 2010 FBC	02/14/12	JBH

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www.windoorinc.com

DRAWING TITLE:
SERIES 4000 SINGLE HUNG IMPACT (SMI) WINDOW
ELEVATION/ANCHOR DETAILS AND DESIGN PRESSURE TABLE

SIZE	DRAWN BY:	DWG NO.	REV
.	JBH	FEI0002	A
SCALE NTS	DATE: 07/11/11	SHEET 2OF7	

TABLES 3A TO 3E - WINDOW SIZES WITH LIMITATIONS IN DESIGN PRESSURE DUE TO ANCHORAGE.

Table 3A - Commodity Sized Windows in Concrete/Masonry

Design Pressure (DP) (psf) limited by Anchorage

Concrete & Filled CMU			CMU		
Buck Sizes		DP (psf)	Buck Sizes		DP (psf)
BW	BH		BW	BH	
No anchor limitations to DP.		110 psf (from Table 2)	> 52-1/8 to 53	> 95 to 96	95
				> 83 to 95	96
				> 71 to 83	104
			> 47 to 52-1/8	> 95 to 96	97
				> 83 to 95	98
				> 71 to 83	106
			No anchor limitations to DP for sizes smaller then those above.		110 psf (from Table 2)

Table 3B - Modular Sized Windows in Concrete/Masonry

Design Pressure (DP) (psf) limited by Anchorage

Concrete & Filled CMU			CMU		
Buck Sizes		DP (psf)	Buck Sizes		DP (psf)
BW	BH		BW	BH	
No anchor limitations to DP.		110 psf (from Table 2)	> 52-1/8 to 53	> 95-1/2 to 96	95
				> 83-1/2 to 95-1/2	96
				> 71-1/2 to 83-1/2	103
			> 47-1/2 to 52-1/8	> 95-1/2 to 96	97
				> 83-1/2 to 95-1/2	98
				> 71-1/2 to 83-1/2	106
			No anchor limitations to DP for sizes smaller then those above.		110 psf (from Table 2)

Table 3C - Commodity & Modular Sized Windows Jamb to Mullion

Design Pressure (DP) (psf) limited by Anchorage

Buck Sizes		DP (psf)
BW	BH	
No anchor limitations to DP.		110 psf (from Table 2)

Table 3D - Commodity Sized Windows in Wood Substrates

Design Pressure (DP) (psf) limited by Anchorage

Buck Sizes		DP (psf)	Buck Sizes		DP (psf)
BW	BH		BW	BH	
53	96	61	47	96	75
53	95	61	47	95	75
53	83	66	47	83	79
53	72	73	47	72	85
53	71	73	47	71	85
53	62	78	47	62	92
53	55 1/4	86	47	55 1/4	99
53	49 5/8	94	47	49 5/8	107
53	43 3/4	100	47	43 3/4	110
53	37 3/8	110	47	37 3/8	110
53	30 1/2	110	47	30 1/2	110
53	25	* 85	47	25	* 96
52 1/8	96	62	38	96	97
52 1/8	95	63	38	95	103
52 1/8	83	68	38	> 71 to 83	106
52 1/8	72	75	38	25 to 71	110
52 1/8	71	75	36	> 95 to 96	105
52 1/8	62	80	36	25 to 95	110
52 1/8	55 1/4	88	No anchor limitations to DP for sizes smaller then those above.		110 psf (from Table 2)
52 1/8	49 5/8	96			
52 1/8	43 3/4	101			
52 1/8	37 3/8	110			
52 1/8	30 1/2	110			
52 1/8	25	* 87			

Table 3E - Modular Sized Windows in Wood Substrates

Design Pressure (DP) (psf) limited by Anchorage

Buck Sizes		DP (psf)	Buck Sizes		DP (psf)
BW	BH		BW	BH	
53	96	61	43 1/2	96	80
53	95 1/2	61	43 1/2	95 1/2	81
53	83 1/2	66	43 1/2	83 1/2	86
53	71 1/2	73	43 1/2	71 1/2	94
53	59 1/2	81	43 1/2	59 1/2	102
53	51 1/2	91	43 1/2	30-1/2 to 51-1/2	110
53	47 1/2	98	43 1/2	27 1/2	* 96
53	43 1/2	100	39 1/2	96	92
53	35 1/2	110	39 1/2	95 1/2	92
53	30 1/2	110	39 1/2	83 1/2	98
53	27 1/2	* 78	39 1/2	71 1/2	106
47 1/2	96	71	39 1/2	30-1/2 to 59-1/2	110
47 1/2	95 1/2	71	39 1/2	27 1/2	* 105
47 1/2	83 1/2	76	35 1/2	> 83 1/2 to 96	107
47 1/2	71 1/2	84	No anchor limitations to DP for sizes smaller then those above.		110 psf (from Table 2)
47 1/2	59 1/2	92			
47 1/2	51 1/2	103			
47 1/2	30-1/2 to 47-1/2	110			
47 1/2	27 1/2	* 87			

PRODUCT REVISED
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By Manuel Perez
Miami-Dade Product Control

* SIZES WITH BUCK HEIGHT (BH) LESS THAN 30 1/2" DO NOT HAVE SPACE FOR ENHANCED ANCHORAGE AT THE MEETING RAILS, THEREFORE THE DESIGN PRESSURE (DP) IS LOWER THAN THE NEXT LARGEST WINDOW. AT 30 1/2" BH OR LARGER, WINDOWS ARE FABRICATED AND INSTALLED WITH ENHANCED ANCHORAGE AT MEETING RAILS.

NOTES:

1- FOR EQUAL LEG WINDOWS, BUCK DIMENSIONS ARE THE SAME AS WINDOW DIMENSIONS.
2- FOR FLANGE WINDOWS, BUCK DIMENSIONS ARE 1" LESS THAN WINDOW DIMENSIONS.
3- BW: BUCK WIDTH, BH: BUCK HEIGHT
4- DP: DESIGN PRESSURE
5- CMU: CONCRETE MASONRY UNIT

REVISIONS			
DESCRIPTION	DATE	REV	BY
ORIGINAL ISSUE	07/11/11	0	RJA
UPDATE TO 2010 FBC	02/14/12	A	JBH
SHEET		.	.

Robert J. Amoruso, P.E.
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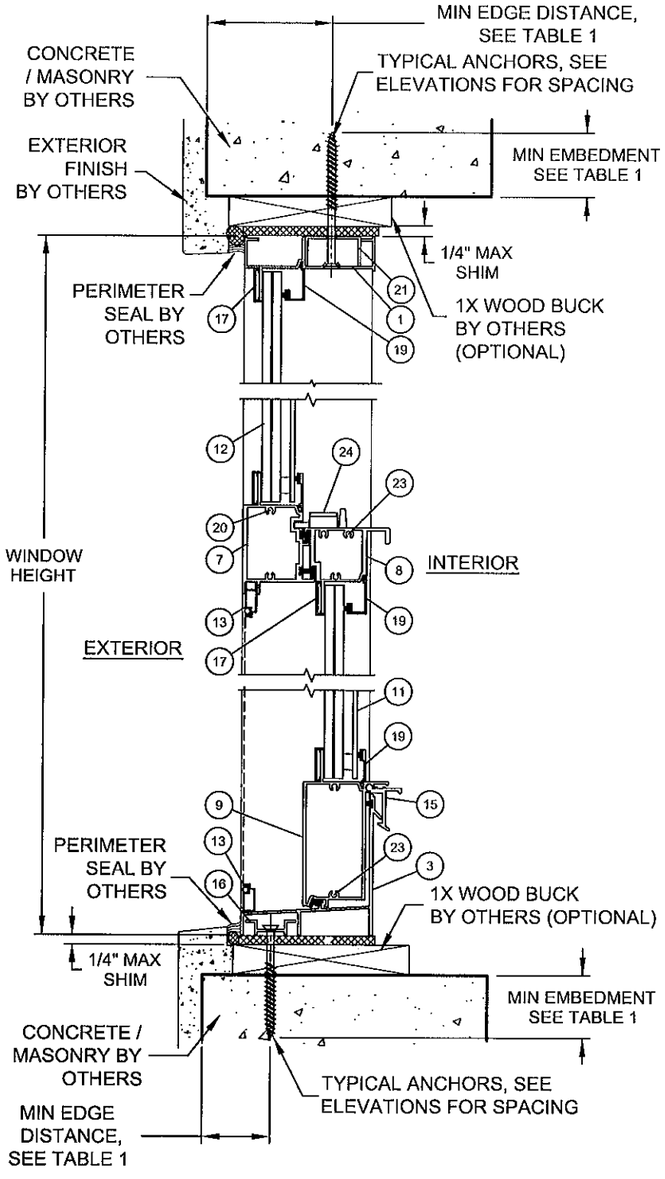
DRAWING TITLE:
SERIES 4000 SINGLE HUNG IMPACT (SMI) WINDOW
ANCHOR LIMITATION TABLES

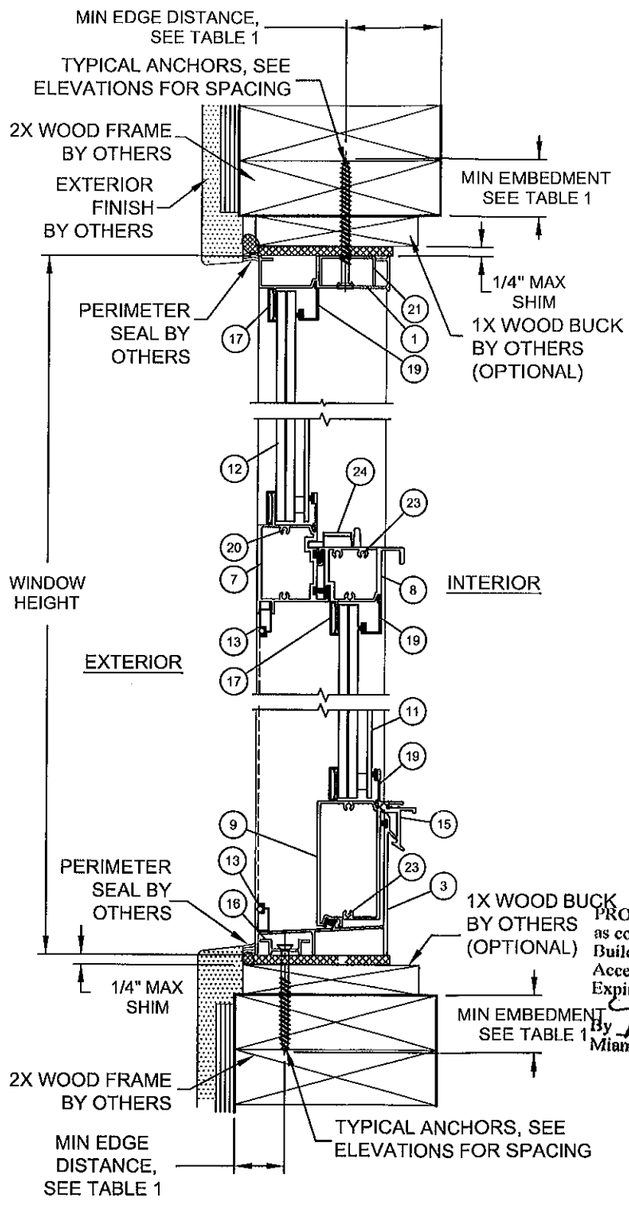
SIZE	DRAWN BY:	DWG NO.	REV
	JBH	FEI0002	A
SCALE: NTS	DATE: 07/11/11	SHEET 3OF7	

A VERTICAL SECTION
CONCRETE / MASONRY SUBSTRATE
WITH EQUAL LEG FRAME

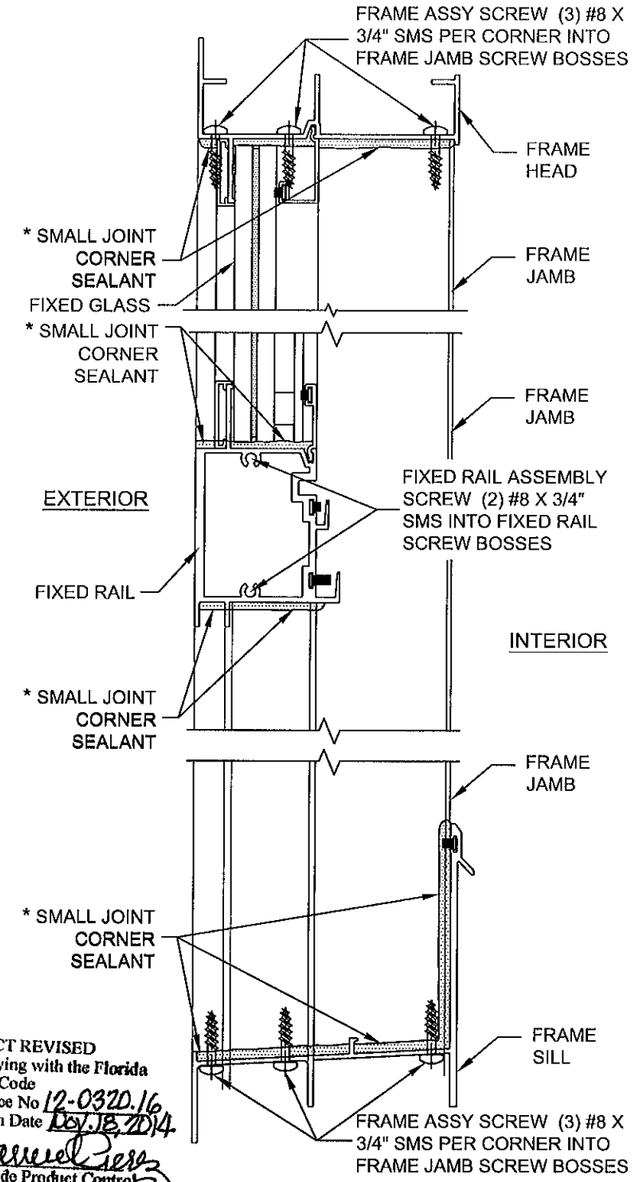


B VERTICAL SECTION
CONCRETE/MASONRY SUBSTRATE
WITH EQUAL LEF FRAME

A VERTICAL SECTION
WOOD FRAME SUBSTRATE
WITH EQUAL LEG FRAME



B VERTICAL SECTION
WOOD FRAME SUBSTRATE
WITH EQUAL LEG FRAME



FLANGE FRAME CORNER DETAIL
SIMILAR FOR EQUAL LEG FRAME

* CORNER SEALANT APPLIED IN THE FACTORY IS INSTALLED ON THE EXTERIOR SURFACE OF THE FRAME JOINTS. AFTER WINDOW INSTALLATION THE SEALANT MAY NOT BE VISIBLE.

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 12-0320.16
Expiration Date Dec.18.2014
By Miami Dade Product Control

REVISIONS			
DESCRIPTION	DATE	BY	
ORIGINAL ISSUE	07/11/11	RJA	
UPDATE TO 2010 FBC	02/14/12	JBH	

SHEET	REV
.	0
.	A

Robert J. Amoruso, P.E.
FL License No. 49752

ROBERT JAMES AMORUSO LICENSE No 49752 STATE OF FLORIDA PROFESSIONAL ENGINEER 3/13/12

PTC Product Design Group, LLC
PO Box 520775
Longwood, FL 32752-0775
321-690-1788 (P) 321-690-1789 (F)
FBPE Cert. of Auth. No. 25935

WINDOOR INCORPORATED
7500 AMSTERDAM DRIVE
ORLANDO, FL 32832
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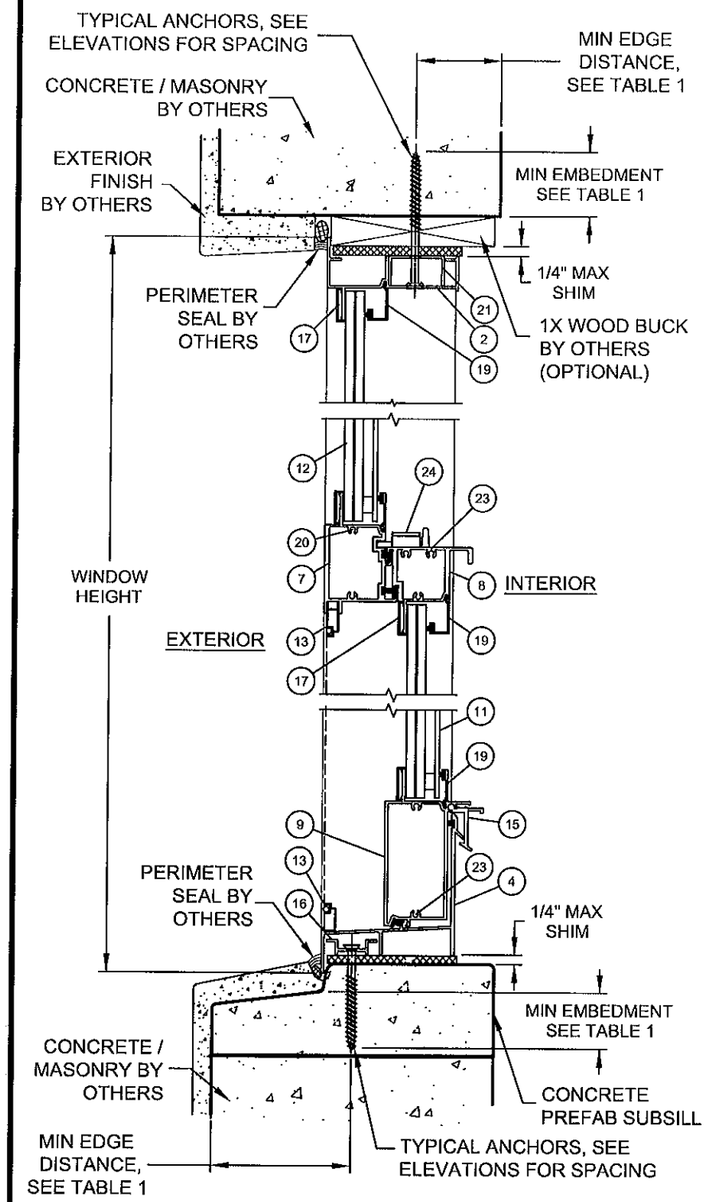
www.windoorinc.com

DRAWING TITLE:
SERIES 4000 SINGLE HUNG IMPACT (SMI) WINDOW
VERTICAL SECTIONS A & B AND CORNER DETAILS

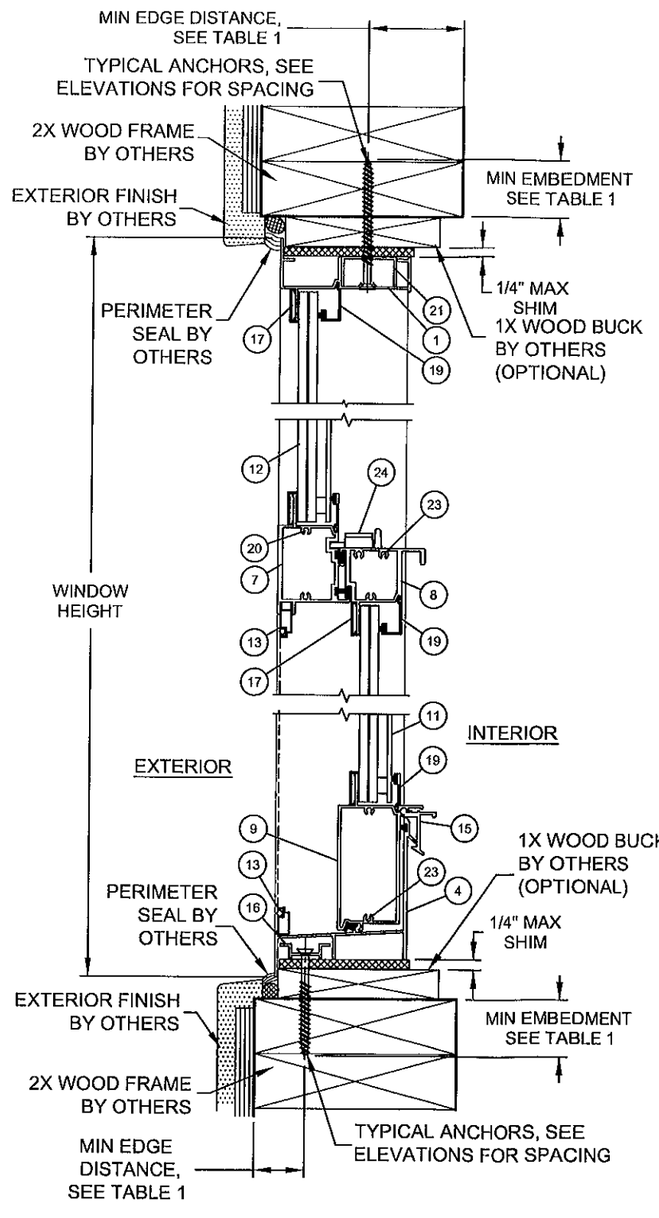
SIZE	DRAWN BY:	DWG NO.	REV
.	JBH	FEI0002	A
SCALE NTS	DATE: 07/11/11	SHEET 4OF7	

E VERTICAL SECTION
CONCRETE / MASONRY SUBSTRATE
WITH FLANGE FRAME

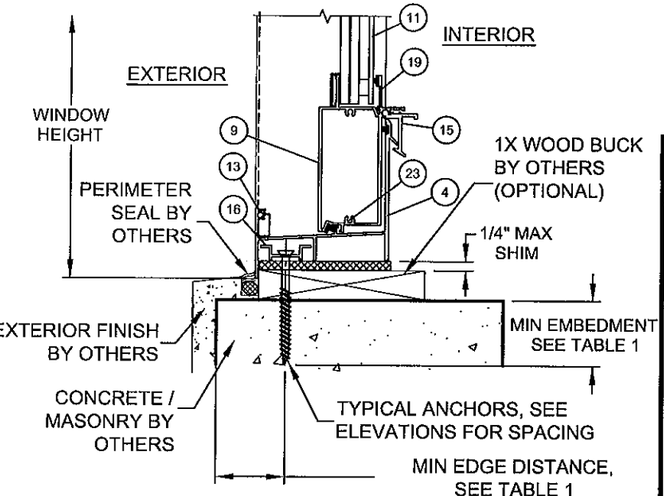


F VERTICAL SECTION
CONCRETE/MASONRY SUBSTRATE
WITH FLANGE FRAME

E VERTICAL SECTION
WOOD FRAME SUBSTRATE
WITH FLANGE FRAME



F VERTICAL SECTION
WOOD FRAME SUBSTRATE
WITH FLANGE FRAME



F VERTICAL SECTION
CONCRETE/MASONRY SUBSTRATE
WITH FLANGE FRAME

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 12-0320.16
Expiration Date Nov. 15, 2014.
By Manuel Perez
Miami Dade Product Control

REVISIONS			
SHEET	REV	DESCRIPTION	DATE	BY
.	0	ORIGINAL ISSUE	07/11/11	RJA
.	A	UPDATE TO 2010 FBC	02/14/12	JBH

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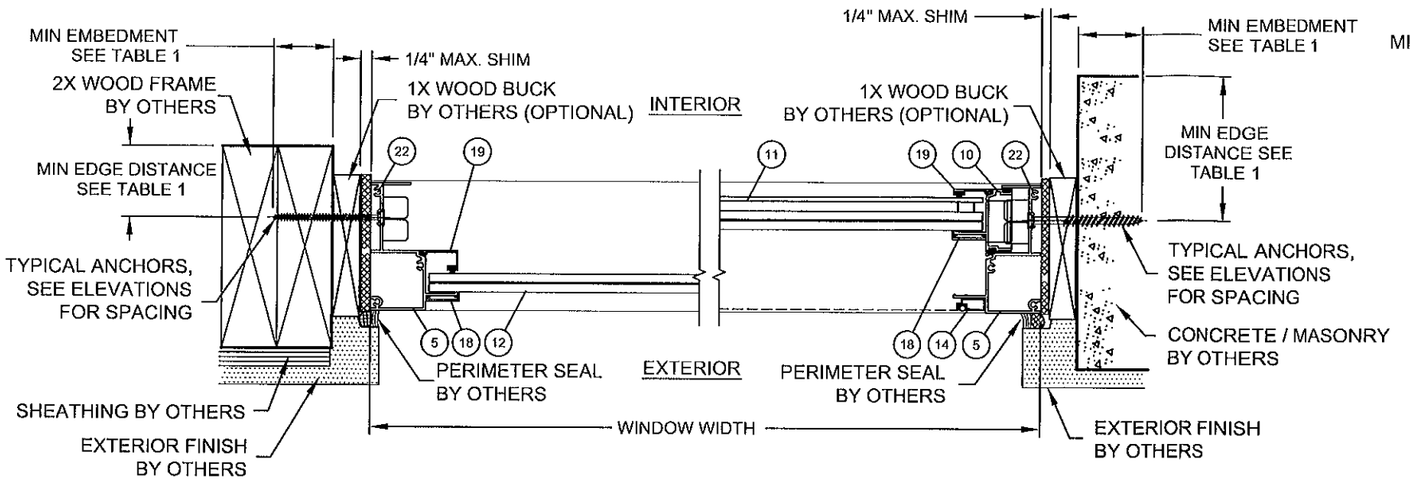
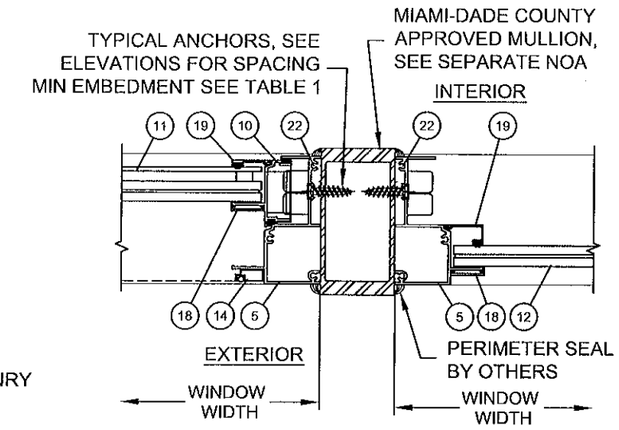
DRAWING TITLE:
SERIES 4000 SINGLE HUNG IMPACT (SMI) WINDOW
VERTICAL SECTIONS E & F

SIZE	DRAWN BY:	DWG NO.	REV
.	JBH	FEI0002	A
SCALE NTS	DATE: 07/11/11	SHEET 5OF7	

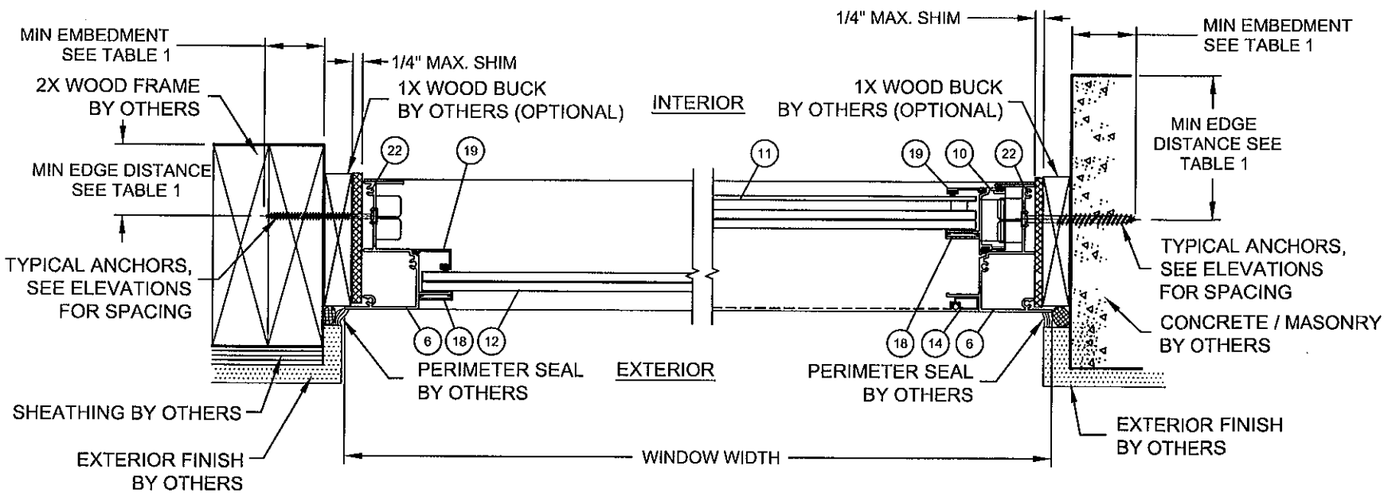


C **HORIZONTAL SECTION**
WOOD FRAME SUBSTRATE
WITH EQUAL LEG FRAME

D **HORIZONTAL SECTION**
CONCRETE / MASONRY SUBSTRATE
WITH EQUAL LEG FRAME

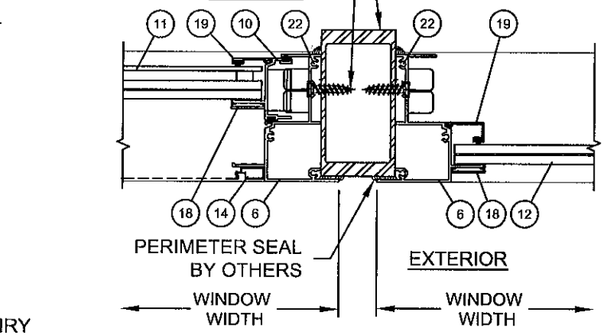


HORIZONTAL SECTION
2x4 ALUMINUM TUBE MULLION
WITH EQUAL LEG FRAME



G **HORIZONTAL SECTION**
WOOD FRAME SUBSTRATE
WITH FLANGE FRAME

H **HORIZONTAL SECTION**
CONCRETE / MASONRY SUBSTRATE
WITH FLANGE FRAME



HORIZONTAL SECTION
2x4 ALUMINUM TUBE MULLION
WITH FLANGE FRAME

SHEET	REV	DESCRIPTION	DATE	BY
.	0	ORIGINAL ISSUE	07/11/11	RJA
.	A	UPDATE TO 2010 FBC	02/14/12	JBH

REVISIONS

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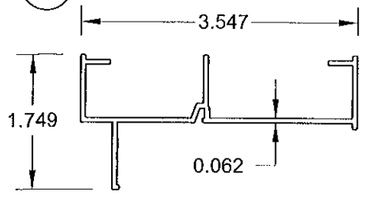
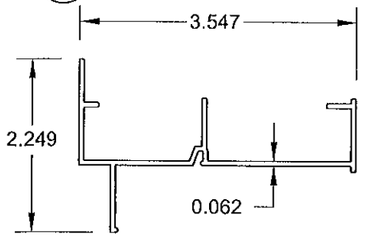
DRAWING TITLE:
SERIES 4000 SINGLE HUNG IMPACT (SMI) WINDOW
HORIZONTAL SECTIONS C, D, G & H AND MULLION SECTIONS

SIZE	DRAWN BY:	DWG NO.	REV
.	JBH	FEI0002	A
SCALE NTS	DATE: 07/11/11	SHEET 6OF7	

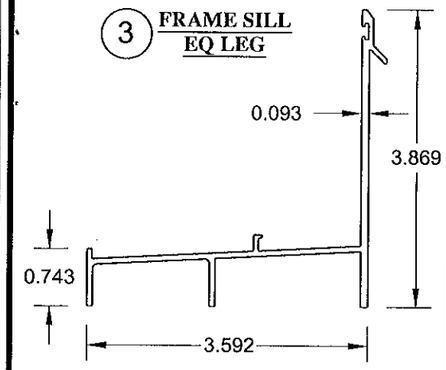
1 FRAME HEAD EQ LEG



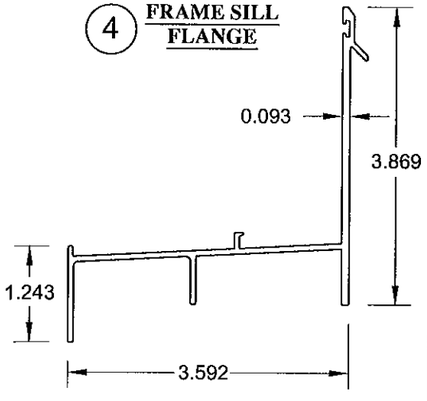
2 FRAME HEAD FLANGE



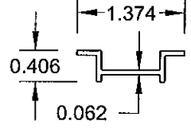
3 FRAME SILL EQ LEG



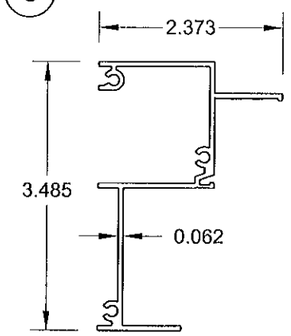
4 FRAME SILL FLANGE



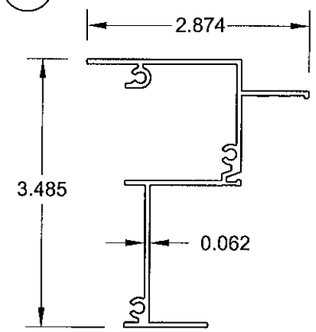
16 SILL RETAINER



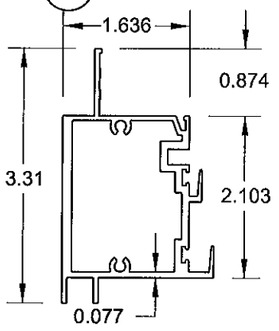
5 FRAME JAMB-EQ LEG



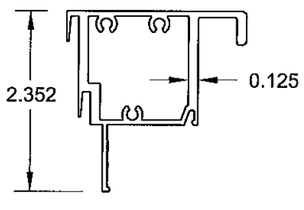
6 FRAME JAMB-FLANGE



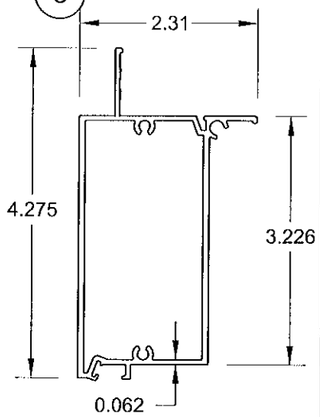
7 FIXED RAIL



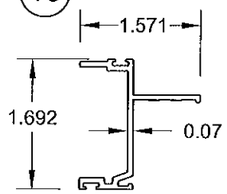
8 MEETING RAIL



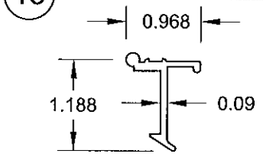
9 HIGH LIFT RAIL



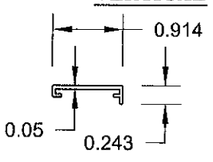
10 SASH JAMB



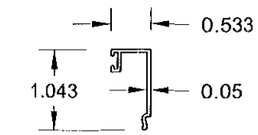
15 SILL LOCK (OPTIONAL)



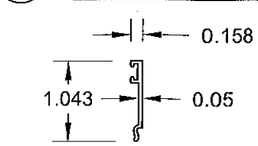
17 18 MUNTIN ADAPTOR HORIZONTAL OR VERTICAL



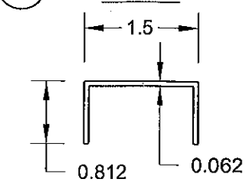
19 GLAZING BEAD FOR 9/16" GLASS



19 GLAZING BEAD FOR 1" INSULATED GLASS

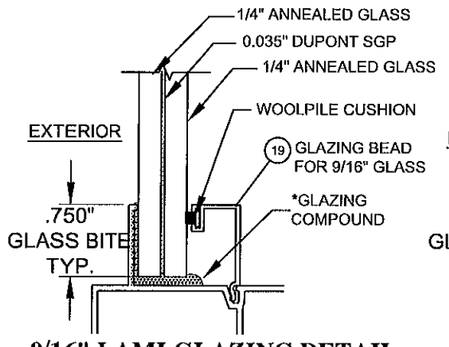


21 FRAME HEAD FILLER

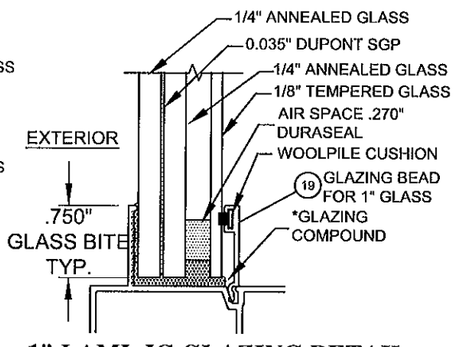


BILL OF MATERIALS

ITEM #	PART DESCRIPTION	PART # OR DWG NO.	MATERIAL
1	FRAME HEAD-EQ LEG	FE 5900	ALUM. EXTRUSION (6063-T6)
2	FRAME HEAD-FLANGE	FE 5907	ALUM. EXTRUSION (6063-T6)
3	FRAME SILL-EQ LEG	FE 5901	ALUM. EXTRUSION (6063-T6)
4	FRAME SILL-FLANGE	FE 5908	ALUM. EXTRUSION (6063-T6)
5	FRAME JAMB-EQ LEG	FE 5902	ALUM. EXTRUSION (6063-T6)
6	FRAME JAMB-FLANGE	FE 5909	ALUM. EXTRUSION (6063-T6)
7	FIXED RAIL	FE 5903	ALUM. EXTRUSION (6005-T5)
8	MEETING RAIL	FE 5904	ALUM. EXTRUSION (6005-T5)
9	HIGH LIFT RAIL	FE 5905	ALUM. EXTRUSION (6063-T6)
10	SASH JAMB	FE 5906	ALUM. EXTRUSION (6005-T5)
11	SASH GLASS	NA	SEE GLAZING DETAILS
12	FIXED GLASS	NA	SEE GLAZING DETAILS
13	SCREEN HEAD & SILL	NA	ALUMINUM ROLLFORM
14	SCREEN JAMB	NA	ALUMINUM ROLLFORM
15	SILL LOCK (OPTIONAL)	FE 5031	ALUM. EXTRUSION (6063-T6)
16	SILL RETAINER	FE 5910	ALUM. EXTRUSION (6063-T6)
17	MUNTIN ADAPTER HORIZONTAL	FE 5911	ALUM. EXTRUSION (6063-T6)
18	MUNTIN ADAPTER VERTICAL	FE 5911	ALUM. EXTRUSION (6063-T6)
19	9/16" GLAZING BEAD	FE 5914	ALUM. EXTRUSION (6063-T6)
	1" GLAZING BEAD	FE 5912	
20	FIXED RAIL ASSY SCREW	NA	#8 x 3/4" PN SMS SS
21	FRAME HEAD FILLER	FE 5922	ALUM. EXTRUSION (6063-T6)
22	FRAME ASSY SCREW	NA	#8 x 3/4" PN SMS SS
23	SASH ASSY SCREW	NA	#8 x 3/4" PN SMS SS
24	METAL CAM-SWEEP LOCK	NA	DIE-CAST ZINC



9/16" LAMI GLAZING DETAIL FOR ELEVATION 1 & 2



1" LAMI+IG GLAZING DETAIL FOR ELEVATION 1 & 2

NOTES:
LAMI: LAMINATED GLASS
IG: INSULATED GLASS

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 12-0320.16
Expiration Date Nov. 18, 2014
By Manuel Perez
Miami-Dade Product Control

*APPROVED GLAZING COMPOUNDS
1- NATIONAL STARCH HOT MELT
2- DOW CORNING 995 SILICONE

REVISIONS			
DESCRIPTION	DATE	BY	REV
ORIGINAL ISSUE	07/11/11	RJA	0
UPDATE TO 2010 FBC	02/14/12	JBH	A

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DRAWING TITLE:
SERIES 4000 SINGLE HUNG IMPACT (SMI) WINDOW COMPONENTS, BOM AND GLAZING DETAILS

SIZE	DRAWN BY:	DWG NO.	REV
.	JBH	FEI0002	A
SCALE NTS	DATE: 07/11/11	SHEET 7OF7	